was at one time so extensive as to produce marked anæmia, which confined the patient to bed for a month. Six months after onset the right kidney, from which the blood was found to come, was opened on operation by the usual autopsy incision. No gross lesions were found. An examination of a bit of excised kidney showed, however, evidence of an old inflammatory process—*i. e.*, "the presence of small cysts, some containing a colloid material. Occasionally a hyaline cast is found in the straight tubules, but they are more numerous in sections from the regions of the pyramids. The casts stain so deeply and the epithelial cells about them appear so flattened that one may conclude they have been lodged there a long while. In places red blood corpuscles are seen in the straight tubules. In the protoplasm of many of the cells lining the collecting tubules are seen brownish particles of pigment."

Schüller reviews the literature of cases similar to this, and accepts only two in which careful examination of the excised kidney failed to reveal any pathological affection. He thinks it is better to refer to these two cases as "unexplained" rather than to draw from them the general conclusion that hemorrhage may occur from a perfectly healthy kidney. The varied pathological findings in other cases he groups under seven headings. Congenital malformations, diffuse unilateral nephritis, diffuse or circumscribed unilateral nephritis, glomerulonephritis, fibroid degeneration of the capsula adiposa, mechanical lesions and their effects, and, lastly, a special group for the case described by Abbé, apparently due to calcareous incrustations in a papilla. The purely vasomotor theory advanced by Klemperer to explain the hemorrhage he receives with little favor, and inclines to the view of Albarran, that no matter what role the nervous system may play careful examination will practically always reveal some organic lesion however insignificant. He does not think that we can disregard this lesion on the assumption that it is altogether out of proportion to the clinical manifestations. The exact mechanism of the hemorrhage in these cases remains unexplained.

The Leishman-Donovan Body and Tropical Splenomegaly.—In November, 1900, Leishman observed at the Royal Victoria Hospital, Netley, some curious bodies in smears from the spleens of individuals, who had been invalided home suffering from "Dum-dum" fever. His description did not appear until May, 1903 (*British Medical Journal*, May 30, 1903, vol. i. p. 1252). The name "Dum-dum" was applied to this tropical fever owing to its having extensively prevailed in a cantonment in India of that name. Nearly all the literature on these parasites has appeared in the *British Medical Journal* for the remainder of 1903 and up to the present date in 1904. Donovan's name is associated with these bodies owing to the fact that he was the first after Leishman to find them in the smears from the spleen in tropical cachexia. He was the first also to find them in the blood smears from the spleen obtained by splenic puncture *intra vitam*. At the recent meeting of the British Medical Association (*British Medical Journal*, September 17, 1904, pp. 642–658) the relationship of these new bodies to tropical splenomegaly and cachexia was thoroughly discussed in the Section on Tropical Diseases.

Briefly stated, the Leishman-Donovan bodies are demonstrable by the Romanowsky stain or some of its modifications. They are small oval bodies 3 to 8μ in diameter. Each possesses two nuclei, one much larger than the other and oval in outline. The small nucleus is in the form of a small rod set perpendicularly or at a tangent to the larger one. The protoplasm of the body stains a reddish tint. They usually occur singly or in twos, but occasionally they are grouped together to the number of twenty, embedded in a matrix. It is now conceded that this grouping is due to their being contained within the bodies of macrophages. The bodies are not contained within the red corpuscles, although Laveran holds that they are. There is no authentic evidence of their having been found in the peripheral circulating blood. They have now been observed in a very large number of cases of tropical cachexia and splenomegaly in the splenic blood obtained *intra vitam*.

Clinically the cases present the following symptoms: Irregular remittent or intermittent type of fever; grave anæmia of the secondary type; marked cachexia; progressive emaciation; and great enlargement of the spleen. Occasionally there is a history of dysentery. Most of the cases had previously been regarded as malarial in origin. What is of great interest is the fact that Bentley has shown that the disease known as "kala-azar," of Assam, presenting in general the symptoms enumerated above, is due to infection with this parasite. Homer Wright and others have demonstrated that the disease known as "Delhi boil" is caused by the same organism. It has been shown that the disease produced by the organism is widely distributed. It has been found in various parts of India, and has been observed in Omdurman, in lower Egypt, and in Tunis.

In addition to being found in the spleen it has been demonstrated in the liver, kidneys, mesenteric glands, walls of intestinal ulcers, and in lesions of the skin including those of "Delhi boil" and scabies. The disease is very fatal. Quinine is nothing like so efficacious as a curative agent as in malaria. Some observers claim that the drug is a prophylactic. The mode of entrance of the parasite into the body has not been ascertained. It is thought probable that it enters by way of the skin. So far it has not been found in the urine or feces of infected individuals. The Indian physicians now do splenic puncture as a routine in all cases of splenomegaly and apparently meet with no untoward sequelæ. The cases usually show a leukopenia and the differential count reveals a marked reduction of the polymorphonuclears, and an enormous increase in the lymphocytes and particularly in the large mononuclears.

Various views have been advanced as to the nature of these bodies. Leishman though that they were involution forms of the human trypanosome, but his view has been strongly opposed. In the hundreds of cases now on record no trypanosomes have been found in the circulating blood. Marchand and Leddingham supported Leishman's view. Laveran, who studied Donovan's specimens, thought that it was a form of piroplasma similar to the piroplasma bigeminum, the parasite of Texas cattle fever, and that they were sometimes contained in the red cells. Ross, supported by the majority of observers, thinks that we have to deal with an entirely new genus of the sporozoa.

The suggestion has been made that the splenomegalies of splenic anæmia and Banti's disease may be due to infections with this parasite. Additional interest is thus added to these diseases in this country.